

REMARKS***Status of the Claims***

Claims 1-10 and 12-23 are pending, with claim 10 being the only pending independent claim. Claims 1-9 and 19-23 are withdrawn from consideration as being directed to non-elected subject matter pursuant to the restriction requirement. Claims 10 and 16 have been amended to even more clearly recite and distinctly claim the present invention. Support for the claim amendments may be found throughout the specification, including, for example, in the original claims. Therefore, no new matter has been added. In order to expedite prosecution, claim 11 has been canceled without prejudice to or disclaimer of the subject matter contained therein.

It is noted that the Examiner objected to claims 14 and 15 as being identical; however, it is claims 15 and 16 that are inadvertently identical. Accordingly, claim 16 has been amended to change the dependency to claim 12 such that claims 15 and 16 are no longer identical.

Applicants respectfully request the Examiner to reconsider and withdraw the outstanding rejections in view of the foregoing amendments and the following remarks.

Claim Rejections Under 35 U.S.C. § 102

Claims 10 and 12-18 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Japanese Publication No. 05-171103 ("103"), or U.S. Patent No. 6,313,221 to Yabuta et al. ("Yabuta"), or Japanese Publication No. 03-179067 ("067"). Applicants respectfully disagree with these rejections; therefore, the rejections are respectfully traversed.

'103 discloses a resin composition having an acrylic copolymer with a COOH- unit, an acrylic copolymer containing an epoxy group, and an amino resin. (Abstract). '103 further discloses that the resin is a paint resin and forms a paint film. (Page 1, paragraphs [0001] and [0004]). '103 discloses that above a certain number average molecular weight the viscosity at the time of paint film formation is high, fluidity falls, and the smooth painted surface is not obtained. (page 5, lines 30-36). Moreover, it is disclosed that the paint is usually in the form of a solution. (page 6, lines 4-5). Therefore, as 103's paint has "fluidity" and is in the form of a "solution", the paint composition of '103 is a conventional solvent based paint composition. At page 6, lines 4-14, it is disclosed that the '103 paint composition requires a solvent.

In contrast, the present claims recite a glycidyl (meth)acrylate based resin for a ***powder coating composition***. The ***powder coating composition*** of the present claims is

different from the '103 paint composition which requires a solvent, because the presently claimed *powder coating composition* does not require a solvent. The presently claimed *powder coating composition* overcomes the known disadvantages of a solvent-based paint composition, as disclosed by '103, including being environmentally friendly as disclosed at page 1, paragraph [0002] of the specification.

Further, in contrast with '103, the present claims recite a glycidyl (meth)acrylate based resin for a *powder coating composition comprising* (a) a glycidyl (meth)acrylate monomer of formula I, (b) a caprolactone (meth)acrylate monomer of formula II, and (c) an ethylenically unsaturated monomer selected from the group consisting of methyl acrylate, ethyl acrylate, n-butyl acrylate, isobutyl acrylate, 2-ethylhexyl acrylate, cyclohexyl acrylate, isobornylacrylate, 2-ethylhexyl (meth)acrylate, lauryl (meth)acrylate, tridecyl (meth)acrylate, stearyl (meth)acrylate, cyclohexyl (meth)acrylate, isobornyl (meth)acrylate, α -methyl styrene, α -ethylstyrene, divinyl benzene, vinyl chloride, vinylidene chloride, vinyl acetate, vinyl propionate, and mixtures thereof. Therefore, the presently claimed glycidyl (meth)acrylate based resin includes monomers (a), (b), and (c), wherein each of the three monomers is specifically defined resulting in a limited number of variations in the resin's composition. In contrast, '103's epoxy group containing acrylic copolymer includes one or more monomers such as a glycidyl (meth)acrylate, hydroxyl group containing acrylic monomers, and partial saturation monomers, wherein the list of each type of the disclosed monomers is extensive resulting in almost infinite combinations of monomers therein providing a copolymer composition with wide ranging properties. Further, this copolymer of '103 having wide ranging properties depending on the various combinations of monomers used will have "fluidity" and will be in the form of a "solution" as disclosed at page 5, lines 30-36 and page 6, lines 4-5 of '103. Therefore, the paint composition of '067 will not be a *powder coating composition* as presently claimed.

According to M.P.E.P. § 2131, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). As '103 does not disclose or suggest the presently claimed combination of features, it, therefore, fails to anticipate the present claims 10 and 12-18.

Yabuta discloses a thermosetting powder coating composition which is prepared by a wet process from a formulation containing an epoxy-containing acrylic resin (a), a polycarboxylic acid compound curing agent (b) and fine crosslinked resin particles (c). (Col. 2, lines 54-58). Yabuta further discloses the thermosetting powder coating composition

provides coating films having improved blocking resistance and smoothness if the epoxy-containing acrylic resin (a) comprises two different types of epoxy-containing acrylic resins A and B which preferably satisfy certain solubility parameter and glass transition temperature conditions. (Col. 5, lines 37-55).

The present claims, in contrast, recite *a glycidyl (meth)acrylate based resin* for a powder coating composition comprising (a) a glycidyl (meth)acrylate monomer of formula I, (b) a caprolactone (meth)acrylate monomer of formula II, and (c) an ethylenically unsaturated monomer selected from the group consisting of methyl acrylate, ethyl acrylate, n-butyl acrylate, isobutyl acrylate, 2-ethylhexyl acrylate, cyclohexyl acrylate, isobornylacrylate, 2-ethylhexyl (meth)acrylate, lauryl (meth)acrylate, tridecyl (meth)acrylate, stearyl (meth)acrylate, cyclohexyl (meth)acrylate, isobornyl (meth)acrylate, α -methyl styrene, α -ethylstyrene, divinyl benzene, vinyl chloride, vinylidene chloride, vinyl acetate, vinyl propionate, and mixtures thereof. Therefore, the presently claimed glycidyl (meth)acrylate based resin includes monomers (a), (b), and (c), wherein each of the three monomers is specifically defined resulting in a limited number of variations in the resin's composition. In contrast, the epoxy-containing acrylic resin (a) of Yabuta includes an epoxy-containing monomer and an optional monomer which is selected from a long list of various monomers ranging from polycaprolactone to styrene, wherein the epoxy-containing monomers and optional monomers may be used alone or in any combination thereof. However, no combination of monomers in Yabuta anticipates the glycidyl (meth)acrylate based resin comprising monomers (a), (b), and (c), as presently claimed. More particularly, the presently claimed ethylenically unsaturated monomers are not disclosed by Yabuta in the list provided at Col. 5, lines 6-22.

Further, in contrast to Yabuta the present claims recite *a glycidyl (meth)acrylate based resin* in direct contrast with Yabuta's epoxy-containing acrylic resin (a) comprising two different types of epoxy-containing acrylic resins A and B in order to obtain a thermosetting powder coating composition providing coating films having improved blocking resistance and smoothness. The present claims do not require a mixture of two different types of glycidyl (meth)acrylate resins. Furthermore, as disclosed in the Examples beginning on page 16 of the specification a glycidyl (meth)acrylate resin results in powder coating compositions having desirable characteristics.

According to M.P.E.P. § 2131, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d

1051, 1053 (Fed. Cir. 1987). As Yabuta does not disclose or suggest the presently claimed combination of features, it, therefore, fails to anticipate the present claims 10 and 12-18.

'067 discloses a paint composition having a resin made from glycidylmethacrylate in 30.0 parts by weight, styrene in 30.0 parts by weight, n-butylacrylate in 10.0 parts by weight, dodecylmethacrylate in 10.0 parts by weight, and Placcell FM-2® series: 2-hydroxyethyl methacrylate/caprolactone (1:2 mol) adduct in 20.0 parts by weight. (USE/ADVANTAGE as provided by DERWENT). The paint composition of '067 includes a "resinous solution" as disclosed in the USE/ADVANTAGE section of the DERWENT abstract. The "resinous solution" of '067 implies the presence of solvent(s) in the paint composition.

The present claims, in contrast, recite a glycidyl (meth)acrylate based resin for *a powder coating composition* comprising (a) a glycidyl (meth)acrylate monomer of formula I, (b) a caprolactone (meth)acrylate monomer of formula II, and (c) an ethylenically unsaturated monomer. The *powder coating composition* of the present claims is different from the '067 paint composition, which includes a "resinous solution" because the presently claimed *powder coating composition* does not require a solvent. The presently claimed *powder coating composition* overcomes the known disadvantages of a solvent-based paint composition, as disclosed by '067, including being environmentally friendly as disclosed at page 1, paragraph [0002] of the specification.

Further, the present claims recite a glycidyl (meth)acrylate based resin for *a powder coating composition* comprising (a) a glycidyl (meth)acrylate monomer of formula I, (b) a caprolactone (meth)acrylate monomer of formula II, and (c) an ethylenically unsaturated monomer selected from the group consisting of methyl acrylate, ethyl acrylate, n-butyl acrylate, isobutyl acrylate, 2-ethylhexyl acrylate, cyclohexyl acrylate, isobornylacrylate, 2-ethylhexyl (meth)acrylate, lauryl (meth)acrylate, tridecyl (meth)acrylate, stearyl (meth)acrylate, cyclohexyl (meth)acrylate, isobornyl (meth)acrylate, α -methyl styrene, α -ethylstyrene, divinyl benzene, vinyl chloride, vinylidene chloride, vinyl acetate, vinyl propionate, and mixtures thereof. Therefore, the presently claimed glycidyl (meth)acrylate based resin includes monomers (a), (b), and (c), wherein each of the three monomers is specifically defined resulting in a limited number of variations in the resin's composition. In contrast, as disclosed in '067 the resin is in the form of a "resinous solution" which requires a solvent component in the resulting paint composition. Therefore, the paint composition of '067 is not a *powder* coating composition as presently claimed.

According to M.P.E.P. § 2131, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art

reference.” Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). As '067 does not disclose or suggest the presently claimed combination of features, it therefore fails to anticipate the present claims 10 and 12-18.

In view of at least the foregoing, Applicants respectfully submit that the pending claims 10 and 12-18 are not anticipated by '103, Yabuta, or '067.

Conclusion

Without conceding to the propriety of the rejections, claims 10 and 16 have been amended as provided above, to even more clearly recite and distinctly claim Applicants' invention and to pursue an early allowance. For the reasons noted above, the art of record does not disclose or suggest the inventive concept of the present invention as defined by the claims.

In view of the foregoing amendments and remarks, reconsideration of the claims and allowance of the subject application is earnestly solicited. In the event that there are any questions relating to this application, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that prosecution of this application may be expedited.

Respectfully submitted,

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